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by the Spearman foot rule transmuted into terms of a Pearson coefficient is .7. By applying the formula of Brown,

$$r_n = \frac{nr_1}{1+(n-1)r_1},$$

it is found that reports on ten objects will give practically as good a result as an infinite number of reports (r being .96 for the result from one set of such ten with another set of ten).

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REVIEWS AND ABSTRACTS OF LITERATURE

Democracy and Education. John Dewey. New York: The Macmillan Company. Pp. xii + 434.

Ever since the hunting, that Plato said all philosophizing is, began, there have been two opinions as to its value. Though it has been the chosen pursuit of a few, a part of mankind, and never a small part, has persisted in regarding it as useless wordiness. But a far more serious misfortune which has attended it almost from the first has been the contrariety of opinion which has obtained among the hunters themselves as to what it is they are hunting. Socrates and Plato had a consistent programme; knowledge was all of one kind to them. They were hunting for a way to live, not merely a way Knowledge therefore took on a fateful significance to them. Without it one could not cultivate the olive, or steer a ship, or examine his own life, or bring up his children, or serve the commonwealth. But when Aristotle came with his confusion-breeding distinction between knowing for the sake of knowing and knowing for the sake of doing, he set theory against practise and took away strength and dignity from both knowing and doing.

Since that unfortunate time philosophy has for the most part been a subject-matter of great abstractness, professing to be concerned with the ultimate nature of reality, whatever that may mean, rather than a hunting down of the difficulties of our common life and a persistent effort to find ways of dealing with them. Its search for knowledge wholly unmixed with volition has made, of what was in its beginning a very human enterprise, an exceedingly elaborate technique of distinctions, the manipulation of which, having virtue in itself, is generally regarded as the exclusive function of a specialized fraternity. The vaunted intellectual knowledge to which they devote themselves provides the absorption of a captivating game, but does not bear the fruit of human helpfulness which we have a right to expect. Theoretical knowledge without practical knowledge is empty. Either philosophy must bake bread or it can not give us God, freedom, and immortality.

As soon as one begins to put this noble art of asking and answering questions to human uses the whole situation changes. Its problems lose their passivity, and become live things which powerfully resist the manhandling of arbitrary treatment, and point out their own solutions. There is no branch of human endeavor which so completely integrates all forms of human striving as the education of the young. There is no approach to reflection so potent as that which the theory of education involves. Philosophy grew up as an effort to comprehend the requirements of educational procedure. The greatest masterpiece in its literature is Plato's matchless work on education. If philosophic issues make and can make no difference in educational procedure, it is evident that they can make no difference anywhere else in life. If education, on the other hand, can go on just as well without philosophy as with it, it is evident that it is indeed the unexamined life which Socrates declared was not fit to be lived by any man.

"The educational point of view," writes Professor Dewey, "enables one to envisage the philosophic problems where they arise and thrive, where they are at home and where acceptance or rejection makes a difference in practise. . . . Education is the laboratory in which philosophic distinctions become concrete and are tested. . . . The most penetrating definition of philosophy which can be given is, then, that it is the theory of education in its most general phases."

If philosophy is for anything, if it is not a kind of mumbling in the dark—a form of "busy work" which otherwise unoccupied adults mark time with-it must shed some light upon the path, must help to make purposes more articulate and their realization more likely. Life without it must be a different sort of thing from life with it. And the difference which it makes must be in us. It can not be a debt of honor which we blindly pay to objective reality—a tribute which things exact from us. It must be a service which we attempt to render to ourselves. It grew out of defeated human purposes. It exists to redeem action. "Philosophic thinking has for its differentia the fact that the uncertainties with which it deals are found in widespread social conditions and aims, consisting in a conflict of organized interests and institutional claims. Since the only way of bringing about a harmonious readjustment of the opposed tendencies is through a modification of emotional and intellectual disposition, philosophy is at once an explicit formulation of the

various interests of life and a propounding of points of view and methods by which a better balance of interests may be effected. Since education is the process through which the needed transformation may be accomplished and not remain a mere hypothesis as to what is desirable, we reach a justification of the statement that philosophy is the theory of education as a deliberately conducted practise."

Philosophy, then, is reflection upon social ideals, and education is the effort to actualize them in human behavior. They go hand in hand. There is no philosophy which is not philosophy of education, and no genuine education which is not the product of philosophy. Clearly this is a point of view as fruitful to philosophy as it is to education. Certain changes have taken place in social life which Professor Dewey believes call urgently for a reconsideration of the basic ideas of traditional philosophic systems and a corresponding reconstruction of educational practise. The most significant of these changes in social life are due to the advance of science, the industrial revolution, and the development of democracy. Such practical changes necessitate new formulations of the relation of mind and body, theory and practise, man and nature, the individual and social, etc., and powerfully affect our notions about human nature and the ways in which it should learn to deport itself in order to live well.

A critic of this book has complained that "in the Deweyan social system there is no room for any individual who wishes to lead his own life in the privacy of reflective self-consciousness." That is There is no room for such an individual because there is no such individual. An individual who strictly leads his own life in the privacy of his reflective self-consciousness would have to be an individual who did not vary with his environment. A being who gives and takes with other beings has a social environment. His giving and taking may be little or much, but the activity of other beings produced him, and the activity of other beings allows him to live. Wherever he is he must either learn to fit in or teach others to fit in. It is only when society is conceived as a ready-made reality set over against individuals, and spelled with a capital "S" that the relation of the individual to his group becomes difficult to comprehend. If society is a hypermetaphysical entity, like the realistic conception of the German state, a something to which we belong, but which does not belong to us, neither it nor the demands which it makes upon men nor the education which it requires can be comprehended. But then why create such an idol?

This world in which we live is made up of individuals working together. They are born at different times. There is a telescoping of the generations. If individuals came ready made at birth there would be no such thing as philosophy or science or literature or art

or politics or religion or education, and if our elders had discovered all that there is to be discovered about existence here and left no unfinished business for us to carry on, philsophy and science and literature and art and politics and religion and education would be very different things from what they are. Life in the first case would be a predetermined unchanging thing, and in the second case it would require of us only that we learn to do as our ancestors had done. Transmission of experience would be required and an education like that of Sparta or of early Rome would be necessary. That is, whenever we think of interrelated beings so made that they may choose the way of life which they will take, we have a group whose very existence depends upon bringing up its young to the way of life which the elders have chosen. Such a group need not be intentionally progressive, but if it is not, the programme of existence which it strives to repeat from day to day and generation to generation meets resistance, both in ever-changing external environment and in the dynamic nature of the young. We are prone to believe that if the right way to think about things and men could only once be found and the proper human adjustments once be made the race might live happily ever after; but that is a delusion. It leaves out of account the infinite diversity of constitutions—capacities and points of view as well as the varied play of stimuli to which individuals must respond. There is a democracy more fundamental than that of government. It is this democracy of experience. Social organization means the utilization of these contributing individual capacities and points of view. In proportion as a society makes provisions for them in the continuing revaluation of its common life on the part of its individual members it frees them for social growth and becomes truly democratic. In viewing society as the associated interworking of human beings who reach and pursue common purposes because of freely shared experiences, I can not but feel that Professor Dewey has given the world that ideal picture of the aspiration of democracy which it has long wanted to hang beside Plato's vision of "the best state."

Society then is the conjoint, cooperative, associated doing of individuals. It never is, but is always becoming, but its component parts make their to-days and to-morrows out of their yesterdays. "The development within the young of the attitudes and dispositions necessary to the continuous and progressive life of a society can not take place by direct conveyance of beliefs, emotions, and knowledge." Each individual must determine his own beliefs, feel his own emotions, and generate his own knowledge. All that society can do is to surround the young with necessities for performing their own giving and taking in socially approved ways. Three of the more impor-

tant functions of the special environment which it creates for this purpose, which we call the school, are: "simplifying and ordering the factors of the disposition it is wished to develop; purifying and idealizing the existing social customs; creating a wider and better balanced environment than that by which the young would be likely, if left to themselves, to be influenced." The aim of education is to enable the individual to continue this education, i. e., to make his own growth a conscious process on the part of each individual so that he will continue it as long as he lives.

There are certain theories of education which are opposed to this one and which must be rooted out if real education is to flourish. first of them regards education as preparation for some future difficulty or privilege. But one can prepare to swim next year only by swimming now. The only way to prepare for the future is to utilize present possibilities to the full. The second theory regards education as the unfolding of latent powers, but keeps its eyes upon an assumed final or finished development, disregarding the fact that each stage is as worthy and final as the one which it regards as the last one. A third view defines education as the perfecting of the powers of the mind, but the supposed original faculties of the mind which it attempts to perfect are purely mythological, and a fundamental fallacy lurks in this doctrine that activities and capacities can be separated from subject-matter. The theory of education as formation takes everything educational into account save its essence—the native activities which shape themselves by their own energy. Education for culture is a process of accommodating the future to the Professor Dewey states his own definition of education as "that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience."

The fundamental question of philosophy concerns the nature of knowledge, and since education has knowledge for its object the question, what is knowledge, must be settled before its work can begin. To this question there are two answers from which one must choose. One is that knowledge is the description of the things that exist. "Knowledge is a double of that which is." The other is that knowledge is not our awareness of the things that exist; it is our ability to work with them. How much better off would we be with the first kind of knowledge than without it even if we could conceivably have all of it that could possibly be had? The knowledge which we want is skill in working with what exists. "The function of knowledge is to make one experience freely available in other experiences. . . . In other words, knowledge is a perception of those connections of an object which determine its applicability in a given situation. . . .

While the content of knowledge is what has happened, what is taken as finished, and hence settled and sure, the reference of knowledge is future or prospective. For knowledge furnishes the means of understanding or giving meaning to what is still going on and what is to be done. . . . When knowledge is cut off from use in giving meaning to what is blind and baffling it drops out of consciousness entirely or else becomes an object of esthetic contemplation."

Certain philosophic schools of method "regard knowledge as something complete in itself irrespective of its availability in dealing with what is yet to be. And it is this omission which vitiates them and which makes them stand as sponsors for educational methods which an adequate conception of knowledge condemns. . . . The doctrine of formal discipline in education is the natural counterpart of the scholastic method. . . . 'Reason' is just the ability to bring the subject-matter of prior experience to bear to perceive the significance of the subject-matter of a new experience. . . . The theory of the method of knowing which is advanced in these pages may be termed pragmatic. Its essential feature is to maintain the continuity of knowing with an activity which purposely modifies the environment. It holds that knowledge in its strict sense of something possessed consists of our intellectual resources-of all the habits that render our action intelligent. Only that which has been organized into our disposition so as to enable us to adapt the environment to our needs and to adapt our aims and desires to the situation in which we live is really knowledge."

This is a very different kind of discussion of the philosophy of education from that which the ordinary book on that subject contains. It is not an attempt to fasten time-honored philosophical terms and classifications here and there upon this or that peg of the subject-matter with which education deals. It is entirely free from the woodenness and empty formality of such a proceeding. Professor Dewey has not tried to make a theory of education to fit into a preconceived system of philosophy. He has tried to think out the problems of education. His style is as simple and direct as his method is fruitful. The book represents the reflection of a lifetime. I am convinced that nowhere in any modern literature is there so profound and vitalizing a discussion of the meaning of education as he offers here.

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Fundamental Sources of Efficiency. Fletcher Durell. Philadelphia: J. B. Lippincott. 1914. Pp. 350.

The book is intended by the author to provide a few elemental principles upon which efficiency, now so energetically sought, may be